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A Compilation of Camp Century Environmental Monitoring Data from 20 May 1960 to 30 June 1961

by

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29 April 1962

U. S. ARMY CHEMICAL CORPS
NUCLEAR DEFENSE LABORATORY
ARMY CHEMICAL CENTER • MARYLAND

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A COMPILATION OF CAMP CENTURY ENVIRONMENTAL MONITORING DATA FROM 20 MAY 1960 TO 30 JUNE 1961

by

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FOREWORD

The work was conducted under Project 4X12-01-001, Radiological Monitoring (U). This report is a compilation of the results of environmental monitoring at Camp Century, Greenland from 20 May 1960 through 30 June 1961. The work was started 11 June 1960 and was completed 31 August 1961.

Notice

Disposition

DIGEST

The report contains the results of the first 58 weeks of the U. S. Army Environmental Monitoring Program for the package power reactor located at Camp Century, Greenland. Alpha and beta activities of snow and water samples are reported in microcuries per milliliter. Similar measurements of air samples are reported in microcuries per cubic centimeter of air. Beta-gamma survey readings of the sampling stations are also included. All observed sample activities were below the maximum permissible concentrations recommended by the Atomic Energy Commission.

MILITARY APPLICATION

The feasibility of nuclear reactors as sources of power for remote military bases depends not only on the power-producing capabilities of the reactor but also upon the degree of radiological safety possible for the military personnel at such a site. A continuous monitoring program assures the detection of possibly unsafe quantities of radioactive materials that might escape from the reactor.

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A COMPILATION OF CAMP CENTURY ENVIRONMENTAL MONITORING DATA FROM 20 MAY 1960 TO 30 JUNE 1961

I. INTRODUCTION.

The discovery of the nuclear fission process and the subsequent development of the power reactor have provided a solution to the longstanding problem of supplying reliable power to isolated military sites. The engineering of a compact power reactor for such use was carried out by the Corps of Engineers and the Atomic Energy Commission (AEC). In cooperation with the Danish Government, the U. S. Army chose Camp Century, Greenland as a test installation for the Army Nuclear Power Program.

A 1500 Kwe light boiling water reactor was installed at Camp Century during the summer of 1960 and went critical 2 October 1960. As with any reactor installation, it was necessary to insure that the surrounding area was not being contaminated by radioactive products escaping from the reactor. To this end, the Army established an Environmental Monitoring Program under the auspices of the Chief Chemical Officer. The onsite sampling was accomplished by a U. S. Army Chemical Corps Environmental Radiological Monitoring (EN-RAD-MON) Team, and the sample analyses was performed by the U. S. Army Chemical Corps Nuclear Defense Laboratory.

II. EXPERIMENTAL PROCEDURES.

A. Sampling Phase.

The sampling grid at Camp Century was laid out along concentric circles with radii of 100, 200, 400, 800, and 1600 meters, using the exhaust stack of the reactor as the origin (see figure 1). Sampling stations were established at the intersection of radial lines (drawn 45° apart) and the concentric circles. Snow samples were taken at each station once each week.

At the time a sample was taken, the station was also monitored with an MX-5 beta-gamma survey meter and the minimum and maximum readings were noted. In addition to the 40 samples collected at these stations, 2 samples were taken each week from the camp's water supply system.

Air sampling was accomplished at only one station. This station, located downwind from the exhaust stack, was operated daily, weather permitting.

Stations were also established at various points within the tunnels of the camp (see figure 2). Although samples were not removed from these stations, beta-gamma survey readings were reported weekly.

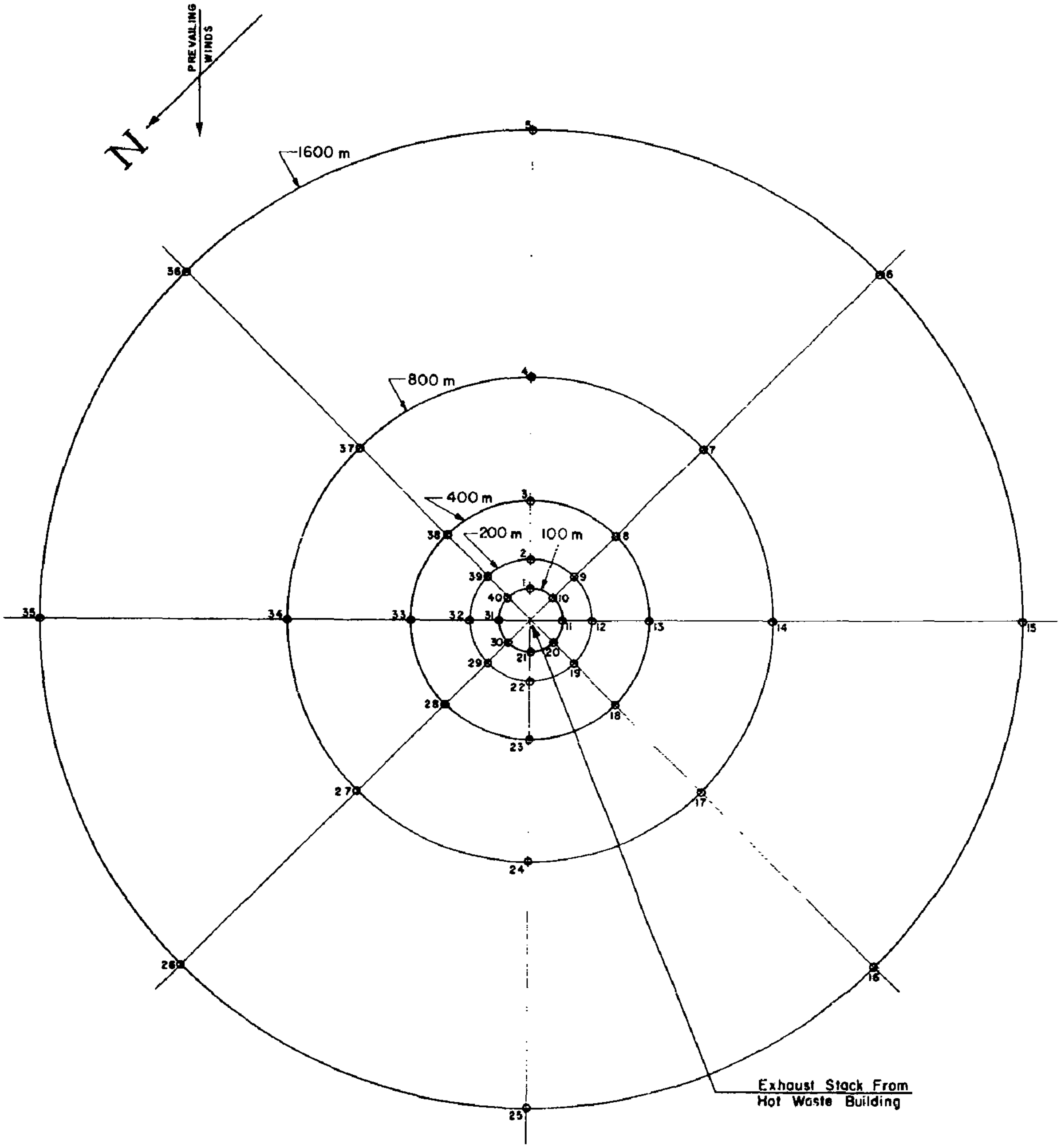

FIGURE 1

CAMP CENTURY ENVIRONMENTAL RADIOLOGICAL MONITORING GRID

NOTE: The small numbers indicate the sampling stations.

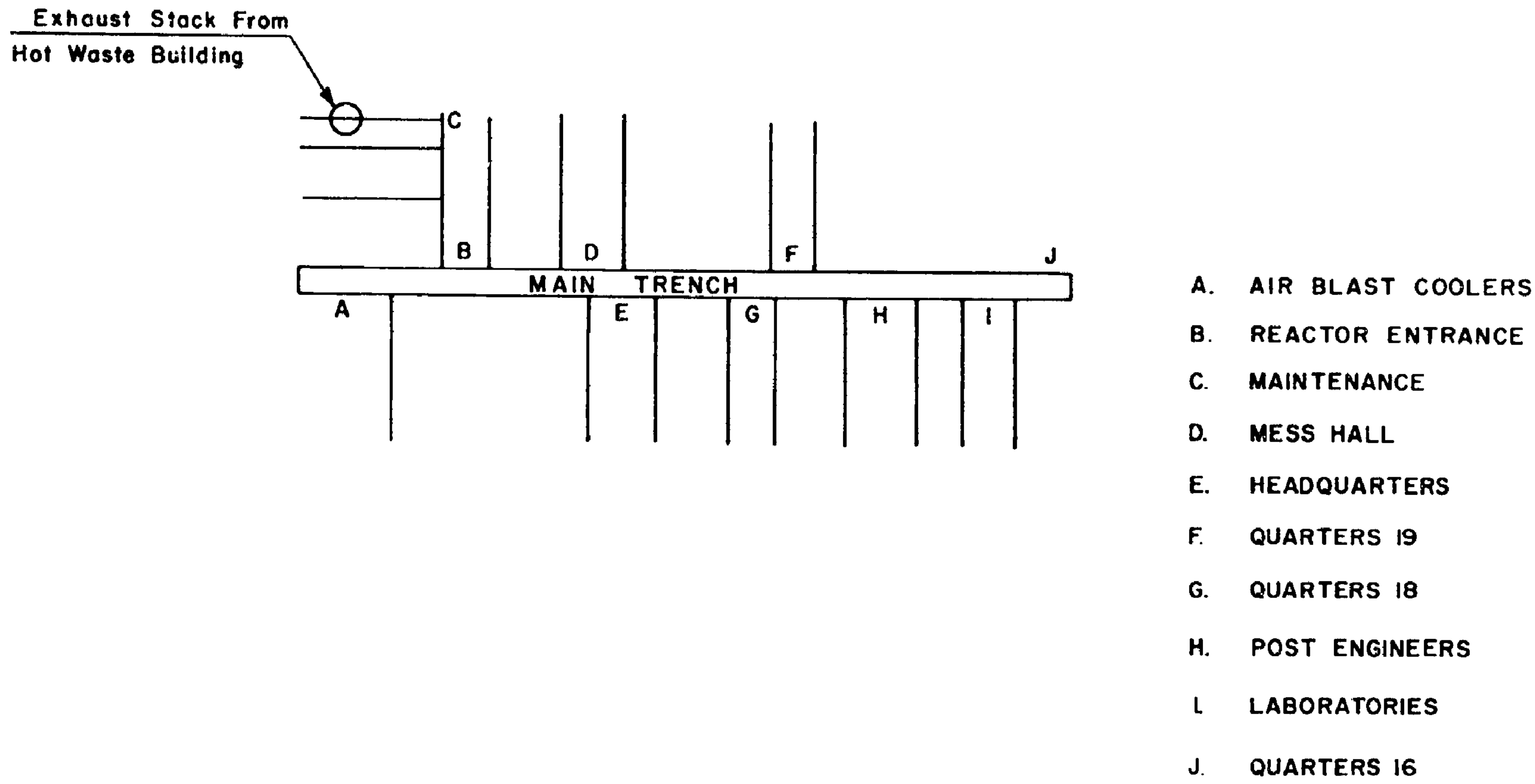

FIGURE 2

CAMP CENTURY TUNNEL MONITORING

NOTE: Each letter indicates the tunnel monitoring locations.

B. Sample Analysis.

The water and melted snow samples of approximately 1 liter each were evaporated to a volume of less than 10 ml and then diluted to exactly 10 ml with distilled water. A 1 ml aliquot was removed and dried on a copper planchet. The gross alpha and beta activity of the aliquot was then determined and the results were calculated to obtain microcuries per milliliter of sample.

A low-level geiger flow counter (Tracerlab CE-14) was used for the determination of the beta activity while a windowless proportional counter (Tracerlab SC 50B) was used for the alpha-activity measurements.

Samples of the airborne activity, collected on filter papers, were processed as follows: (1) filter was ashed; (2) ash was transferred to a planchet containing several drops of canada balsam in xylene; (3) sample was dried and activity measurements were made as for the snow and water samples; (4) results were presented as microcuries per cubic centimeter of air, based on the total amount of air that was drawn through the filter.

III. RESULTS.

Table 1 shows the correlation between the various series numbers used to identify a group of samples and the period of time covered by that series. The dates on which samples were taken are also included.

Table 2 gives the alpha activity in microcuries per milliliter for the 40 snow samples and the 2 water samples for the 58-week period. Table 3 gives the beta activity in microcuries per milliliter for the 40 snow samples and the 2 water samples for the same period.

Table 4 presents the alpha and beta activity in microcuries per cubic centimeter of air for the 7 daily air samples for the 58-week period.

Some of the activity levels, presented in tables 1, 2, 3, and 4, are marked with the letter "a", indicating that because of inadequate statistics, the total count was less than the background count. The activity on these samples was considered to be background. In other cases, a dash is inserted in the activity position, indicating that either no sample was received or that the sample was lost in preparation.

Table 5 contains the results of the EN-RAD-MON Team's beta-gamma surveys of the sampling stations.

After the 50th week, 12 sampling stations were eliminated, including all the stations on the periphery of the grid. This reduction in the number of stations was recommended by a Chemical Corps Inspection Team.

TABLE 1

PERIODS COVERED BY SERIES NUMBERS AND DATES OF SAMPLING

Series	Week	Date of sampling and monitoring
1	19 May through 25 May 1960	20 May 1960 and 21 May 1960
2	26 May through 1 Jun 1960	27 May 1960 and 28 May 1960
3	2 Jun through 8 Jun 1960	2 Jun 1960 and 3 Jun 1960
4	9 Jun through 15 Jun 1960	9 Jun 1960 and 10 Jun 1960
5	16 Jun through 22 Jun 1960	17 Jun 1960
6	23 Jun through 29 Jun 1960	23 Jun 1960
7	30 Jun through 6 Jul 1960	30 Jun 1960
8	7 Jul through 13 Jul 1960	7 Jul 1960
9	14 Jul through 20 Jul 1960	14 Jul 1960
10	21 Jul through 27 Jul 1960	22 Jul 1960
11	28 Jul through 3 Aug 1960	28 Jul 1960
12	4 Aug through 10 Aug 1960	4 Aug 1960 and 6 Aug 1960
13	11 Aug through 17 Aug 1960	11 Aug 1960
14	18 Aug through 24 Aug 1960	18 Aug 1960 and 19 Aug 1960
15	25 Aug through 31 Aug 1960	25 Aug 1960 and 26 Aug 1960
16	1 Sep through 7 Sep 1960	1 Sep 1960
17	8 Sep through 14 Sep 1960	8 Sep 1960
18	15 Sep through 21 Sep 1960	16 Sep 1960
19	22 Sep through 28 Sep 1960	25 Sep 1960 and 26 Sep 1960
20	29 Sep through 5 Oct 1960	29 Sep 1960
21	6 Oct through 12 Oct 1960	7 Oct 1960
22	13 Oct through 19 Oct 1960	15 Oct 1960
23	20 Oct through 26 Oct 1960	20 Oct 1960
24	27 Oct through 2 Nov 1960	27 Oct 1960
25	3 Nov through 9 Nov 1960	3 Nov 1960 and 4 Nov 1960
26	10 Nov through 16 Nov 1960	14 Nov 1960 and 15 Nov 1960
27	17 Nov through 23 Nov 1960	22 Nov 1960 and 23 Nov 1960
28	24 Nov through 30 Nov 1960	29 Nov 1960 and 30 Nov 1960
29	1 Dec through 7 Dec 1960	2 Dec 1960 and 7 Dec 1960
30	8 Dec through 14 Dec 1960	13 Dec 1960
31	15 Dec through 21 Dec 1960	20 Dec 1960 and 21 Dec 1960
32	22 Dec through 28 Dec 1960	23 Dec 1960 and 28 Dec 1960
33	29 Dec 1960 -- 4 Jan 1961	4 Jan 1961
34	5 Jan through 11 Jan 1961	11 Jan 1961
35	12 Jan through 18 Jan 1961	13 Jan 1961 and 18 Jan 1961
36	19 Jan through 25 Jan 1961	24 Jan 1961 and 25 Jan 1961
37	26 Jan through 1 Feb 1961	1 Feb 1961
38	2 Feb through 8 Feb 1961	6 Feb 1961
39	9 Feb through 15 Feb 1961	15 Feb 1961
40	16 Feb through 22 Feb 1961	22 Feb 1961
41	23 Feb through 1 Mar 1961	27 Feb 1961 and 1 Mar 1961
42	2 Mar through 8 Mar 1961	8 Mar 1961
43	9 Mar through 15 Mar 1961	13 Mar 1961 and 14 Mar 1961
44	16 Mar through 22 Mar 1961	17 Mar 1961
45	23 Mar through 29 Mar 1961	23 Mar 1961 and 26 Mar 1961
46	30 Mar through 5 Apr 1961	31 Mar 1961 and 5 Apr 1961
47	6 Apr through 12 Apr 1961	6 Apr 1961 and 10 Apr 1961
48	13 Apr through 19 Apr 1961	13 Apr 1961 and 14 Apr 1961
49	20 Apr through 26 Apr 1961	20 Apr 1961 and 22 Apr 1961
50	27 Apr through 3 May 1961	28 Apr 1961
51	4 May through 10 May 1961	4 May 1961 and 5 May 1961
52	11 May through 17 May 1961	12 May 1961
53	18 May through 24 May 1961	19 May 1961
54	25 May through 31 May 1961	25 May 1961
55	1 Jun through 7 Jun 1961	1 Jun 1961
56	8 Jun through 14 Jun 1961	8 Jun 1961
57	15 Jun through 21 Jun 1961	15 Jun 1961
58	22 Jun through 28 Jun 1961	23 Jun 1961

TABLE 2

ALPHA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	Series 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	µC/ml x 10^{-9}																			
1	a	---	a	3.5	a	0	a	a	a	0	0.33	a	a	0.50	0	0.65	1.0	0.44	1.7	0.56
2	a	a	a	0.35	a	a	a	a	a	a	a	---	a	0	0.50	0.33	a	0.78	0.91	0.54
3	a	a	a	a	a	0.69	a	a	a	0	0.33	---	1.2	0.17	1.3	a	0.50	0.42	0.20	0.20
4	0.34	a	a	2.2	a	0	a	a	1.4	0.33	0.33	a	1.0	0.67	0	a	a	0.44	0.36	0.88
5	a	0.92	a	1.7	a	1.1	a	a	a	0.34	a	a	0	0	a	a	0.66	0.86	0.70	0.20
6	a	a	a	1.2	0.50	1.4	a	a	1.3	0	a	0	0.83	1.2	a	a	a	0.64	a	0.03
7	a	0.75	0.33	0.38	a	---	a	a	a	0.34	a	0	a	0.83	0.82	a	0.67	0.64	1.0	1.6
8	1.2	0.51	0	0.69	a	---	a	0	1.0	0.34	a	0.71	0	0.83	1.3	1.7	1.2	0.76	1.0	0.70
9	0.17	0	1.0	a	a	a	a	a	a	a	0.66	0	a	a	0.50	a	0	0.20	0.19	0.37
10	0.17	0.17	a	0.43	a	0.33	a	a	a	a	a	a	a	0	1.2	a	a	0.63	0.52	0.92
11	0.17	a	1.0	a	0	6.7	a	a	a	0.34	a	a	0.17	a	0.67	a	0.81	0.51	1.1	a
12	8.1	0	a	a	a	1.2	a	a	a	a	0	a	0.50	1.5	0.34	a	1.0	0.64	0.54	1.5
13	0.34	---	0.68	0.36	0	0	a	a	a	a	a	a	a	0.50	a	0.33	0.50	0.20	a	a
14	47.0	0.68	0.16	4.7	a	6.7	a	a	2.7	0.67	a	a	0.17	0.66	a	0.67	0.50	0.098	0.70	a
15	a	0.67	a	0	0	0.34	a	a	0.71	a	1.0	a	0.86	a	0.67	a	1.3	0.21	0.53	2.2
16	0.34	a	0	a	a	a	a	a	0	a	a	0	0.67	1.3	0.84	1.3	0.50	0.88	1.2	0.37
17	3.3	a	0	0.38	a	a	a	a	0.66	0.68	a	a	a	0.50	2.0	a	0.67	0.65	0.03	0.20
18	a	0.34	a	a	0	a	0.07	a	a	a	1.3	a	---	0.17	0.66	0.97	a	0.53	1.5	0.54
19	0.17	0.69	0.34	0.73	a	1.7	a	a	0.33	a	a	0	0.84	0.83	a	0	0	0.86	1.2	2.1
20	0.68	a	a	a	a	1.0	a	a	a	0.67	a	a	0.34	0.50	a	0	0.34	a	0.70	1.1
21	a	a	a	0.34	a	a	a	---	a	0.68	1.3	0	2.0	0.34	a	0	a	0.98	1.0	0.70
22	a	0.17	a	17.0	0	a	a	a	a	0.34	1.0	a	1.6	0.34	0.49	0.67	a	0.88	0.2	0.54
23	a	a	0	0.73	9.0	a	a	a	0	a	0	a	0	0.17	a	0.66	1.0	1.1	0.54	0.68
24	a	a	a	a	0.26	0	a	a	a	a	a	a	1.4	0.17	0	a	a	0.31	1.4	0.38
25	0.84	0.16	a	0.71	a	a	a	a	1.3	1.0	a	a	0.87	0.33	0.33	0.67	a	1.1	0.86	0.71
26	0.33	---	a	1.0	a	0.67	a	a	a	0.67	a	a	1.3	0.33	a	1.0	a	0.78	0.53	0.52
27	0.68	a	a	0	a	0.34	a	a	0.69	a	a	a	0.67	1.5	a	1.3	a	0.77	0.86	0.36
28	a	0.50	a	0	a	a	a	a	a	a	a	a	1.2	0.17	0.33	a	0.17	0.77	0.032	0.70
29	0.17	a	a	a	a	1.3	a	a	a	a	a	---	0	a	0.34	a	0	0.43	0.031	0.20
30	a	0	0.7	0.67	0.17	1.2	a	a	a	a	0	a	0.55	3.7	0.67	0.17	a	0.78	a	0.52
31	0.51	0.68	a	a	a	0.34	a	a	1.0	a	a	0	0.90	0.67	0.17	a	a	0.43	0.70	0.53
32	a	0.17	a	3.0	a	---	a	a	0	a	0	a	0.54	0.68	0	a	0.51	0.76	0.71	0.86
33	0.68	0	1.0	0.71	a	12.0	a	a	1.7	0.33	a	a	0.34	0.84	a	a	0	0.86	0.37	1.0
34	0	a	0.35	0	a	a	a	a	a	a	a	a	1.5	1.2	a	a	a	0.52	0.38	0.03
35	0	0	a	0.34	a	1.0	a	a	a	0	a	a	0.55	0	a	a	1.2	0.54	0.74	0.69
36	a	a	0	a	a	3.3	2.8	a	0	---	a	a	1.0	0.85	a	0.67	a	1.3	0.20	0.20
37	0.34	a	a	0.34	a	1.0	a	a	a	a	1.0	a	a	3.8	a	0	0	0.30	0.37	0.20
38	a	a	0.69	0.34	a	a	a	a	a	---	a	a	0.87	a	a	0.17	0	0.66	1.9	0.37
39	a	0	a	a	a	0.68	a	a	1.3	0.66	a	a	0.17	3.0	1.3	a	0.17	a	a	0.031
40	a	a	a	0.68	a	a	a	a	0	a	a	a	0.50	1.7	a	0.33	0.34	2.0	0.54	0.86
W-1	a	0.17	a	a	0	a	a	a	a	0	a	a	a	1.3	0.50	a	a	0.098	0.54	0.20
W-2	0	0	0.16	0.34	a	1.3	a	a	a	0	a	a	2.2	0.17	a	a	a	a	a	0.36

a. Statistics inadequate. Total count less than background count.
--- No sample received, or sample lost in preparation.

TABLE 2 (CONTD)

ALPHA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	Series																		
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	μC/ml x 10^{-9}																		
1	0.098	1.0	a	0	0	a	a	0	---	0.11	a	---	a	0.10	---	a	0.26	a	a
2	0	a	0	a	a	0.69	a	a	---	0.28	a	---	a	a	---	a	0.11	a	0
3	a	3.0	a	0.35	a	a	a	a	---	0.75	0	---	a	0.20	---	0.36	0.78	a	0.14
4	0	0	0.34	0.35	0	a	---	a	---	---	a	---	---	---	---	a	0	a	a
5	0.097	0.33	0.33	0	1.1	0	---	0	---	---	0.34	---	---	---	---	a	0.26	0.81	a
6	0.23	a	a	0.69	0.76	a	---	a	---	---	0	---	---	---	---	0.11	0	a	0.15
7	0	0.99	a	a	a	0	---	a	---	---	a	---	---	---	---	a	0.69	a	0.15
8	a	0.66	a	0	0.38	0	a	a	---	a	a	---	a	a	---	a	0.10	0.36	a
9	a	a	a	0.33	1.4	0.72	0	a	---	0.11	a	---	a	0.21	---	a	0.81	a	0
10	a	2.0	a	0.35	0.37	a	0.76	a	---	0.098	a	---	a	0	---	a	0.35	a	a
11	0.098	0.72	a	a	a	a	0	a	---	0.76	a	---	a	0.21	---	a	0.45	a	0.50
12	a	0	a	0.35	0.73	a	0	0.17	---	0.26	0.38	---	a	0.90	---	a	0.83	a	a
13	0.34	0.33	a	0.36	0	a	a	0.69	---	0.47	0	---	0.18	0.44	---	a	0.52	a	a
14	2.3	a	0	a	0.36	a	---	a	---	---	a	---	---	---	---	0.098	0.52	a	a
15	1.2	1.3	a	a	0	a	---	0	---	---	a	---	---	---	---	a	0.18	0	a
16	0.24	0	a	a	0	a	---	0.69	---	---	0.37	---	---	---	---	a	a	a	a
17	a	0.34	a	a	1.4	0.36	---	0	---	---	0.77	---	---	---	---	0	1.1	a	a
18	0.43	0.33	0.33	0	0.71	1.1	0.35	a	---	0.93	a	---	a	a	---	a	0.35	a	2.8
19	0.17	1.7	0	a	0	0.69	a	a	---	a	0	---	a	0	---	a	a	0.21	0
20	0.44	1.4	0.33	a	0.40	a	a	0	---	0.29	a	---	a	0.11	---	a	a	a	0.15
21	a	0.33	a	a	0.38	a	a	0.18	---	0.14	a	---	a	0	---	a	0.90	a	a
22	0.33	0.33	a	0	0.76	a	a	a	---	0.46	a	---	a	0.21	---	0.35	0	a	a
23	a	0	0.67	0.71	2.2	a	0	a	---	0.37	a	---	a	0.33	---	a	0.36	a	0
24	0	1.0	a	0	0.35	a	---	0.22	---	---	1.8	---	---	---	---	a	0.55	0.37	0.26
25	0.23	3.2	a	0.34	3.2	a	---	0	---	---	a	---	---	---	---	a	0	0.34	0.62
26	0.33	0.66	0	0	0.35	a	---	0	---	---	0	---	---	---	---	a	0	a	a
27	a	1.3	a	a	5.2	a	---	0	---	---	0	---	---	---	---	0	0.68	0.35	0
28	0.33	0	a	1.8	0	0.37	a	0	---	a	1.1	---	a	a	---	a	0.18	3.2	0.14
29	0.33	1.0	a	0	0	0.74	a	0.59	---	0.44	0.74	---	a	0.28	---	a	0.18	0.10	a
30	a	0.68	a	a	0.36	a	a	0	---	0	a	---	a	a	---	a	0.34	a	a
31	0.43	0.67	a	0	0	a	a	0.41	---	1.3	0	---	a	a	---	a	0.52	a	a
32	0.76	1.3	a	a	0.68	0	0	a	---	0.13	a	---	a	a	---	0.38	a	a	0.16
33	a	a	a	0.72	a	a	a	a	---	0	0.75	---	0	a	---	0.11	0.72	a	a
34	0.50	a	a	0.76	0.35	0.73	---	0	---	0.76	a	---	---	---	---	a	0.70	1.1	0.26
35	a	2.6	a	a	0	0.37	---	0.55	---	0.10	0.35	---	---	---	---	a	0.39	a	a
36	0	1.3	a	a	a	a	---	0	---	0	a	---	---	---	---	a	0.53	0.10	a
37	0.17	2.0	a	0.88	0	a	---	0.19	---	0.46	0.36	---	---	---	---	a	0.18	a	0
38	a	0	a	0	0.36	a	4.6	a	---	a	a	---	a	a	---	a	1.0	0.10	a
39	a	0.67	---	a	a	0.18	a	a	---	0.11	0	---	0	0.11	---	a	0.18	a	a
40	a	1.4	a	0	a	0	a	0.50	---	a	a	---	a	0.11	---	a	0.71	0.36	0.25
W-1	a	0.99	a	0.70	a	a	0.72	0	0	0.10	a	3.4	a	a	0	0.25	1.7	a	a
W-2	a	0.66	0.33	0.36	0	0	a	0.16	0.45	a	a	0.68	a	0.28	a	a	0.51	a	a

a. Statistics inadequate. Total count less than background count.

--- No sample received, or sample lost in preparation.

TABLE 2 (CONT'D)

ALPHA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	Series																		
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
	μC/ml x 10^{-9}																		
1	0	a	a	0.033	a	a	a	a	a	a	0.39	a	a	0.11	0.076	0.40	0.21	0.031	0.86
2	0.19	a	1.1	0.21	a	0.40	0.56	a	a	0.032	0.032	0.22	1.4	a	0.15	0.41	0.55	0.72	0.43
3	0.17	a	a	0.032	0.032	a	0.57	0.92	0.032	a	0.034	---	---	---	---	---	---	---	---
4	0	a	0.53	a	0.72	0.21	a	a	a	a	0.033	---	---	---	---	---	---	---	---
5	0.36	a	0	a	a	a	0.11	a	a	a	0.033	---	---	---	---	---	---	---	---
6	0.36	0	0	a	a	a	0.11	0.22	a	a	0.56	---	---	---	---	---	---	---	---
7	1.2	0.31	0.59	a	a	a	a	a	0.57	a	0.39	---	---	---	---	---	---	---	---
8	a	a	0.91	a	a	a	a	0.21	1.3	a	a	---	---	---	---	---	---	---	---
9	0	a	0	0.032	0.034	0.55	a	0.57	0.77	0.22	0.034	0.11	a	a	0.076	0.41	0.033	0.031	0.19
10	0.90	a	a	a	a	a	a	0.21	0.032	a	a	0.48	2.0	a	a	0.94	0.93	0.031	0.31
11	0	0	a	a	a	a	a	0.57	a	a	a	0.22	0.93	0.34	a	0.21	a	0.20	0.63
12	a	a	0.18	a	a	0.033	a	0.22	0.032	0.21	0.77	0.47	0.41	a	0.22	0.032	0.77	0.36	a
13	a	a	0.87	0.22	0.23	a	0.35	a	1.1	a	0.034	0.48	0.95	a	0.15	0.39	0.20	1.4	0.99
14	0	a	0	0.76	a	a	a	a	a	1.3	---	0.34	0.65	a	0	0.75	0.56	0.54	0.31
15	0.17	a	0	0.20	a	a	a	a	0.41	0.033	a	---	---	---	---	---	---	---	---
16	0.18	a	a	0.21	0.032	0.032	0.21	0.22	a	0.034	a	---	---	---	---	---	---	---	---
17	0.35	a	a	a	0.88	a	0.10	a	0.55	0.21	0.22	0.33	1.3	0.21	0	0.77	0.033	0.87	a
18	0.53	a	a	a	a	a	0.21	0.92	0.033	a	1.1	2.9	1.8	0.60	1.2	0.60	1.1	0.87	1.4
19	1.0	a	0.34	0.20	a	a	a	0.22	0.21	1.2	0.21	0.37	2.1	0.11	0.22	0.97	0.038	0.69	0.10
20	1.1	a	0	0.21	0.21	0.032	a	0.22	0.033	0.22	0.033	0.11	0.42	a	a	0.40	0.39	0.031	1.1
21	a	a	0.18	0.20	0.72	a	a	a	a	0.21	0.77	1.1	0.59	a	0.45	0.75	a	1.7	0.20
22	0.89	a	0.18	a	0.40	0.20	0.11	a	0.38	0.034	0.40	1.2	2.2	0.33	0.075	0.57	0.040	1.4	0.43
23	1.1	a	a	a	0.029	0.032	0.50	a	1.3	0.39	0.034	0.45	5.4	a	a	1.9	0.92	0.69	0.64
24	a	a	a	0.38	a	a	0.11	a	0.032	0.22	a	a	0.74	0.22	a	0.033	a	0.87	a
25	a	a	a	a	a	0.52	a	0.94	0.032	a	0.22	---	---	---	---	---	---	---	---
26	0.16	a	0.55	a	0.031	a	a	0.94	0.21	0.032	0.033	---	---	---	---	---	---	---	---
27	1.4	a	0.17	a	a	a	a	1.7	a	a	0.21	a	0.43	0.10	0.22	0.033	0.21	a	0.20
28	0.34	a	a	0.38	0.033	a	0.33	0.22	0.032	0.22	---	0.22	2.0	a	0	0.60	0.92	0.36	0.63
29	0.18	a	a	0.90	a	a	a	0.22	a	a	0.033	0.34	6.4	0.34	a	1.3	0.035	0.53	0.10
30	0.22	a	0.55	0.21	0.031	a	0.22	0.58	0.94	0.78	0.21	0.58	1.4	0.70	0.29	0.94	0.43	0.53	1.3
31	a	a	a	0.21	a	0.40	a	0.58	a	a	0.033	1.2	1.6	a	0	0.39	0.56	0.38	0.87
32	0.72	a	0.37	0.032	a	0.032	0.60	0.21	0.033	0.21	a	a	0.72	a	a	0.58	1.6	1.7	0.52
33	0.52	a	0.53	0.58	a	a	0.11	a	0.59	a	0.21	0.22	a	a	0	0.40	0.38	1.0	0.54
34	1.1	a	a	a	a	0.032	0.46	a	0.20	1.2	0.032	0.21	0.41	0.11	0.36	0.74	0.38	0.36	0.44
35	a	a	0	a	a	a	0.69	a	0.039	0.033	0.40	---	---	---	---	---	---	---	---
36	a	a	a	0.031	a	0.032	1.2	a	0.76	a	0.58	---	---	---	---	---	---	---	---
37	0.89	a	a	0.032	a	a	0.32	0.56	a	0.034	a	0.58	0.57	a	a	0.39	0.43	0.70	0.53
38	0.37	a	0.89	a	a	0.033	0.58	0.22	0.032	0.93	0.23	0.46	0.94	a	0.45	0.97	3.2	a	0.19
39	a	a	0.38	0.032	0.59	a	0.22	a	0.40	a	a	a	1.1	a	0	0.78	0.21	0.20	0.54
40	a	0.11	0	0.77	a	1.1	a	a	a	0.40	0.94	a	3.2	a	a	0.77	0.21	0.36	0.47
W-1	0.52	a	a	a	a	0.55	a	0.22	a	a	0.38	a	a	a	0	0.39	0.39	0.71	0.63
W-2	a	a	0.17	a	a	0.22	0.32	a	0.22	0.034	a	0.45	0.81	a	a	0.38	0.033	0.87	0.29

a. Statistics inadequate. Total count less than background count.
--- No sample received, or sample lost in preparation.

TABLE 3

BETA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	Series 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	$\mu C/ml \times 10^{-9}$																			
1	7.0	---	23.0	17.0	5.8	12.0	6.4	6.6	3.2	16.0	6.3	12.0	11.0	0.90	13.0	8.9	8.6	5.5	7.8	4.9
2	17.0	8.8	40.0	9.0	5.4	19.0	6.4	13.0	17.0	6.4	11.0	---	22.0	0	9.9	a	15.0	5.5	0	1.4
3	6.8	a	6.3	14.0	3.7	15.0	1.4	a	7.9	0.9	3.6	---	0.90	a	6.8	8.1	8.6	3.2	3.6	3.2
4	6.4	20.0	2.3	13.0	7.6	21.0	6.9	10.0	11.0	3.6	6.8	9.1	3.2	4.6	14.0	10.0	10.0	0.94	0.90	1.4
5	18.0	7.0	a	9.0	6.3	17.0	29.0	11.0	13.0	27.0	a	15.0	10.0	3.2	a	8.6	11.0	4.5	3.7	0
6	15.0	51.0	a	2.8	6.4	32.0	22.0	2.8	8.7	16.0	29.0	14.0	14.0	5.4	3.6	16.0	12.0	4.5	a	a
7	[illegible]	a	2.2	19.0	5.5	---	7.9	15.0	23.0	3.2	12.0	5.5	10.0	9.9	11.0	20.0	5.5	5.5	2.3	1.4
8	17.0	16.0	a	15.0	8.8	---	5.5	a	26.0	10.0	4.5	13.0	10.0	0	24.0	21.0	11.0	3.2	1.4	0
9	5.7	7.0	a	24.0	0	20.0	a	9.6	6.9	31.0	a	7.0	6.8	9.1	3.2	13.0	16.0	2.3	3.1	1.4
10	4.6	6.6	4.5	14.0	13.0	a	5.5	9.8	8.8	7.7	24.0	13.0	19.0	7.7	6.5	12.0	8.6	3.2	a	4.9
11	1.4	9.4	1.4	6.6	21.0	11.0	17.0	6.8	5.5	10.0	12.0	16.0	21.0	17.0	3.2	17.0	0	0	9.4	3.2
12	8.8	0	0	8.2	11.0	20.0	7.9	22.0	3.7	13.0	2.3	0.94	6.3	9.1	12.0	14.0	3.2	1.4	1.4	0
13	7.0	---	22.0	19.0	19.0	13.0	10.0	0.94	11.0	16.0	13.0	18.0	13.0	17.0	9.1	27.0	6.8	4.7	2.2	9.3
14	a	10.0	a	9.9	2.4	17.0	1.4	a	9.2	16.0	24.0	17.0	24.0	12.0	14.0	28.0	a	1.4	0	0
15	12.0	a	190.0	14.0	9.4	7.0	13.0	3.4	19.0	12.0	15.0	34.0	15.0	6.8	7.7	1.4	3.6	3.3	0.90	1.4
16	11.0	6.5	0.63	27.0	4.9	a	7.9	a	12.0	8.6	28.0	11.0	4.6	9.9	15.0	31.0	1.4	3.7	3.2	0.90
17	33.0	2.3	2.2	41.0	4.9	10.0	5.5	1.5	8.6	27.0	5.4	6.8	3.6	14.0	15.0	7.7	4.6	2.3	7.7	2.3
18	7.0	6.9	0.9	12.0	8.5	6.5	4.6	a	3.6	6.3	a	6.4	---	10.0	17.0	16.0	6.3	1.4	12.0	1.4
19	3.7	8.0	a	2.5	9.0	10.0	15.0	a	14.0	8.7	0	21.0	16.0	4.5	6.8	13.0	0	3.6	3.6	3.3
20	7.0	10.0	23.0	5.0	6.8	a	a	a	7.7	8.6	9.9	23.0	8.7	3.2	15.0	13.0	a	3.2	0	3.8
21	5.8	1.4	3.7	7.8	0.94	15.0	6.5	---	17.0	10.0	5.4	16.0	19.0	10.0	19.0	a	13.0	a	9.1	1.4
22	4.6	13.0	3.5	29.0	48.0	16.0	a	9.1	11.0	a	0.90	18.0	12.0	6.9	14.0	13.0	0.90	a	4.5	0
23	9.4	3.2	a	6.0	19.0	10.0	a	a	16.0	0	16.0	12.0	9.1	0.95	6.8	18.0	6.6	6.4	a	0.90
24	0	2.3	a	a	a	a	11.0	6.6	13.0	21.0	6.8	8.0	7.0	6.9	19.0	19.0	a	5.5	8.2	3.8
25	2.3	3.2	3.4	7.3	9.2	a	a	9.7	11.0	a	a	23.0	6.6	4.1	3.2	a	3.7	a	3.6	4.6
26	0.9	---	0	12.0	22.0	4.6	20.0	1.4	13.0	32.0	19.0	18.0	16.0	12.0	13.0	11.0	13.0	a	4.5	4.5
27	6.5	16.0	a	0	14.0	3.2	9.2	3.7	14.0	15.0	6.8	18.0	10.0	5.5	13.0	27.0	8.6	4.6	5.4	a
28	8.1	2.2	a	0.90	a	a	a	9.3	12.0	3.2	12.0	a	11.0	15.0	15.0	20.0	9.9	0.90	2.4	2.3
29	12.0	3.6	a	8.3	8.7	a	3.7	11.0	13.0	11.0	a	---	1.7	9.9	5.6	a	5.4	0.90	2.3	a
30	4.9	18.0	17.0	6.4	3.2	21.0	a	2.7	9.3	17.0	13.0	a	13.0	2.3	10.0	2.3	17.0	4.6	2.3	0
31	2.3	8.0	a	6.9	34.0	34.0	1.5	12.0	14.0	9.1	8.7	30.0	23.0	4.6	7.7	25.0	3.2	2.2	3.2	5.4
32	1.0	a	a	5.2	5.6	---	a	3.8	19.0	4.5	15.0	12.0	8.4	0	11.0	22.0	3.2	0.90	2.3	0
33	4.7	0.90	1.4	2.4	14.0	7.0	0	5.7	19.0	6.3	0.90	12.0	14.0	16.0	7.7	22.0	7.6	6.3	4.6	1.4
34	a	3.7	0	5.1	19.0	65.0	11.0	6.8	16.0	6.3	13.0	9.3	13.0	7.0	12.0	20.0	a	5.4	7.1	0.90
35	2.6	a	a	4.7	16.0	3.7	0	6.5	7.9	28.0	11.0	4.1	39.0	17.0	14.0	22.0	7.7	3.7	2.4	2.2
36	a	7.7	27.0	4.7	22.0	3.0	5.0	3.9	14.0	---	15.0	14.0	15.0	7.0	11.0	14.0	8.6	4.6	1.4	a
37	8.0	a	14.0	0	7.0	a	5.6	1.4	5.7	6.8	22.0	11.0	14.0	30.0	15.0	12.0	a	5.5	3.2	4.7
38	6.4	a	a	a	12.0	a	a	12.0	7.3	---	23.0	16.0	12.0	20.0	14.0	17.0	4.6	2.4	3.7	1.4
39	13.0	3.7	a	0	15.0	17.0	5.7	10.0	11.0	17.0	8.6	8.9	5.6	7.8	12.0	8.7	12.0	5.6	2.3	1.4
40	0.9	7.0	14.0	10.0	14.0	14.0	8.8	13.0	10.0	14.0	11.0	5.3	4.1	11.0	14.0	11.0	11.0	3.6	1.4	6.3
W-1	a	a	a	5.4	2.2	6.3	a	4.5	1.4	3.2	a	0	a	5.4	3.2	a	1.4	a	0.90	0
W-2	a	4.6	a	a	a	6.8	2.3	a	a	5.5	9.9	3.2	10.0	a	a	a	3.6	a	1.4	a

a. Statistics inadequate. Total count less than background count.
--- No sample received, or sample lost in preparation

TABLE 3 (CONTD)

BETA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	Series																		
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	$\mu C/ml \times 10^{-9}$																		
1	18.0	3.2	a	3.7	3.3	0	4.9	6.8	--	4.2	4.7	--	a	3.3	--	a	a	3.8	0.94
2	2.3	3.1	a	11.0	1.5	a	3.3	a	--	4.3	3.9	--	4.0	a	--	3.2	a	5.5	1.5
3	11.0	3.6	a	11.0	9.5	3.3	a	a	--	10.0	14.0	--	2.4	0	--	a	1.4	3.5	5.8
4	4.5	1.6	1.4	14.0	5.3	a	--	4.0	--	--	1.5	--	--	--	--	a	a	6.4	2.4
5	a	a	14.0	a	0.99	a	--	1.5	--	--	9.4	--	--	--	--	a	6.0	9.1	a
6	a	0	a	3.3	6.2	a	--	a	--	--	3.5	--	--	--	--	1.5	3.4	3.4	1.5
7	16.0	6.8	a	7.1	a	3.6	--	a	--	--	3.3	--	--	--	--	6.1	0	1.4	1.5
8	13.0	a	a	2.4	4.1	0	1.5	3.2	--	9.1	0.94	--	3.4	a	--	1.4	3.9	3.5	2.4
9	19.0	10.0	a	a	4.9	2.4	a	a	--	1.6	3.3	--	0	2.4	--	a	a	0.94	8.0
10	8.6	3.2	a	3.4	a	6.2	7.3	7.2	--	4.6	2.3	--	7.1	49.0	--	1.4	4.7	3.3	a
11	14.0	5.9	6.2	a	1.5	a	7.4	a	--	10.0	5.2	--	5.7	6.9	--	3.4	3.3	a	0
12	13.0	8.0	6.8	a	6.0	a	9.7	a	--	4.1	2.6	--	2.3	3.8	--	a	6.3	0.99	3.5
13	10.0	0.90	1.4	a	9.9	1.5	22.0	0	--	6.0	5.2	--	4.9	0	--	a	a	2.4	a
14	9.1	1.4	a	a	3.4	a	--	a	--	--	11.0	--	--	--	--	a	0	2.3	a
15	14.0	0.90	4.1	0.90	a	a	--	a	--	--	5.1	--	--	--	--	a	0	2.3	3.8
16	14.0	a	2.2	a	0	a	--	a	--	--	6.0	--	--	--	--	3.3	0	2.5	1.4
17	25.0	3.2	a	a	a	a	--	a	--	--	1.0	--	--	--	--	2.4	5.8	3.5	5.8
18	9.9	4.5	8.6	0	5.8	0.99	8.0	a	--	3.9	12.0	--	12.0	3.4	--	a	3.4	3.8	8.7
19	10.0	5.4	3.2	a	a	a	13.0	a	--	8.3	2.4	--	7.6	a	--	4.5	2.4	2.4	10.0
20	7.8	0.90	a	a	a	a	9.7	a	--	4.5	0	--	3.2	1.5	--	a	3.5	0.94	1.5
21	9.0	0.90	2.2	8.1	a	3.3	12.0	a	--	10.0	0.94	--	12.0	5.6	--	5.7	a	3.9	1.5
22	6.8	0	a	4.2	a	a	6.0	a	--	3.9	0	--	8.5	3.9	--	0.94	0	3.6	a
23	5.4	7.2	a	1.4	a	a	11.0	a	--	a	0	--	0	3.6	--	3.2	0	2.4	3.3
24	5.4	4.7	a	7.8	a	8.4	--	a	--	--	1.0	--	--	--	--	0	5.0	4.0	0.99
25	3.1	3.1	a	7.0	12.0	a	--	a	--	--	a	--	--	--	--	a	3.3	3.7	7.0
26	3.6	4.5	a	0	2.4	a	--	a	--	--	2.5	--	--	--	--	a	0.99	6.5	4.5
27	6.3	9.2	a	a	a	0	--	a	--	--	0.94	--	--	--	--	a	6.5	7.2	4.1
28	5.4	7.2	10.0	a	0	12.0	14.0	0.94	--	9.0	a	--	8.0	5.9	--	a	a	0.94	0.94
29	5.4	7.8	7.6	a	a	18.0	8.5	3.1	--	5.5	a	--	a	6.8	--	3.4	0	0.99	0
30	1.4	6.5	1.2	a	0	16.0	19.0	5.5	--	2.4	0.94	--	7.9	8.6	--	0	a	a	2.5
31	4.5	8.6	7.6	3.2	a	14.0	6.0	11.0	--	3.1	1.0	--	8.2	7.4	--	2.5	a	0.94	4.5
32	2.2	a	6.6	0.50	7.9	12.0	20.0	a	--	4.2	4.9	--	8.6	9.3	--	5.2	a	3.7	1.5
33	3.1	7.0	13.0	6.8	6.6	18.0	6.7	12.0	--	12.0	11.0	--	2.4	13.0	--	2.4	2.4	2.4	1.6
34	3.6	9.7	16.0	4.2	a	9.9	--	7.3	--	8.8	5.8	--	--	--	--	a	1.4	3.3	4.0
35	1.3	8.7	8.7	a	9.7	32.0	--	7.0	--	4.0	1.4	--	--	--	--	a	a	1.0	2.4
36	0	3.6	17.0	a	a	4.2	--	a	--	7.2	a	--	--	--	--	a	a	0.94	5.6
37	3.2	5.5	a	0	8.0	16.0	--	17.0	--	15.0	3.9	--	--	--	--	a	4.8	a	1.4
38	0.94	10.0	a	3.5	0.99	3.3	20.0	0	--	9.4	1.5	--	9.2	8.6	--	a	4.6	1.4	0
39	6.8	3.6	--	--	9.1	21.0	5.7	a	--	10.0	10.0	--	3.7	4.9	--	1.5	0	0.94	0
40	6.5	9.5	0	1.4	3.8	1.6	15.0	a	--	17.0	9.3	--	13.0	11.0	--	0.99	3.4	2.4	3.4
W-1	2.2	5.4	a	3.8	0.99	22.0	16.0	a	1.0	2.4	5.8	3.7	a	0.94	8.9	a	a	a	3.3
W-2	7.6	6.8	0.90	11.0	3.5	14.0	6.7	a	a	1.4	7.0	0	a	7.2	11.0	a	1.4	0.94	1.4

a. Statistics inadequate. Total count less than background count.
--- No sample received, or sample lost in preparation.

TABLE 3 (CONTD)

BETA ACTIVITY OF SNOW AND WATER SAMPLES

Station no.	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
	Series																		
	μC/ml x 10^{-9}																		
1	8.2	a	a	4.0	6.6	a	3.5	a	5.8	a	3.9	2.6	a	1.5	7.6	7.0	4.8	0	6.3
2	1.0	0.99	0.99	4.9	1.5	1.5	a	1.5	4.0	0.99	5.8	2.5	1.9	3.6	1.5	2.5	6.6	a	1.4
3	8.6	1.5	0.94	9.7	a	1.5	a	3.4	4.7	0.99	3.5	--	--	--	--	--	--	--	--
4	3.4	a	4.9	4.7	a	a	3.3	0.94	0.99	3.8	9.4	--	--	--	--	--	--	--	--
5	9.4	a	10.0	3.7	a	a	0.99	a	7.2	2.6	0	--	--	--	--	--	--	--	--
6	0.99	0	8.0	3.3	0	a	a	a	4.0	3.5	2.4	--	--	--	--	--	--	--	--
7	8.1	1.1	14.0	a	a	1.4	a	2.6	0.99	a	3.9	--	--	--	--	--	--	--	--
8	6.0	0.99	0	a	a	3.9	1.5	a	8.4	4.9	0	--	--	--	--	--	--	--	--
9	5.0	a	0	0.99	a	1.4	a	2.4	5.0	0	a	0	13.0	3.5	a	0	3.5	1.4	2.2
10	7.3	0	4.0	0.94	0.94	0.94	a	a	2.4	a	0	a	4.7	2.5	1.5	6.9	0.99	1.4	1.4
11	0.94	7.3	15.0	0	a	2.5	3.9	1.5	a	2.4	1.5	a	a	1.5	1.5	1.4	a	0.90	3.6
12	2.3	0.90	12.0	2.4	a	0.99	0	a	4.9	a	0	a	4.7	1.0	1.5	a	a	0	5.5
13	4.9	a	2.4	2.5	5.2	3.9	0	2.4	5.8	a	4.2	9.7	a	3.6	0.99	0	1.4	1.4	1.4
14	3.7	a	4.9	3.5	0.99	a	1.4	2.5	4.8	7.0	--	5.1	a	0.99	4.1	0	0	6.5	3.2
15	6.4	3.9	2.7	6.3	3.7	0	a	2.4	5.2	2.5	4.0	--	--	--	--	--	--	--	--
16	1.4	4.9	6.5	3.3	5.8	4.9	a	2.5	0.99	1.0	a	--	--	--	--	--	--	--	--
17	0	5.9	12.0	2.4	3.2	2.4	0.99	0.99	8.1	0.99	2.5	0	2.9	4.0	a	2.5	2.5	0.90	2.3
18	0.94	5.6	14.0	2.4	5.3	1.4	9.9	9.2	0.99	9.7	8.4	7.0	14.0	5.1	11.0	5.1	11.	12.	4.6
19	0	2.7	10.0	7.0	0.99	7.2	a	0	7.1	7.7	a	a	15.0	3.5	a	1.5	1.7	0.90	3.2
20	3.9	5.6	6.9	4.9	8.1	2.4	a	11.0	0.99	4.0	1.5	a	0	2.3	0.99	1.5	0.99	1.4	9.1
21	7.9	5.8	16.0	3.7	7.0	0.90	0.94	a	2.5	3.4	a	10.0	10.0	1.0	6.1	3.9	0	4.5	0.90
22	9.2	2.4	9.1	1.0	7.5	1.4	2.5	6.0	9.0	16.0	a	7.1	0	0	2.5	7.3	0	2.2	2.2
23	0	7.2	7.0	5.9	6.6	0.94	2.7	3.9	a	0	a	3.3	a	a	7.2	3.5	1.4	5.4	a
24	0.99	0	3.9	a	2.5	3.2	a	5.0	0.99	1.5	a	2.5	3.4	3.6	a	5.0	2.5	0.90	0
25	3.2	5.8	0.94	3.5	0	2.2	a	5.9	5.7	a	a	--	--	--	--	--	--	--	--
26	3.2	6.2	a	5.6	3.2	a	1.5	6.0	1.4	0.99	a	--	--	--	--	--	--	--	--
27	1.6	0	a	1.5	0	0.90	0	4.9	0.99	1.4	1.5	1.0	a	a	3.6	0.99	1.5	0.90	4.6
28	5.5	6.1	7.6	1.4	7.0	3.5	7.0	2.5	0	0.99	--	5.0	a	a	3.8	4.1	7.3	1.4	0
29	2.5	0	4.0	2.3	3.2	a	5.1	a	4.1	1.0	4.0	0	a	4.0	a	1.5	1.1	3.2	0.90
30	9.0	0.94	a	3.4	7.0	a	5.0	0.99	1.5	3.6	0.99	a	a	0	0.99	4.0	2.6	4.5	1.4
31	3.8	0.99	4.0	5.0	3.3	2.5	3.9	4.0	3.4	4.0	a	9.8	0	4.0	0.99	4.0	1.4	2.4	1.4
32	9.4	5.0	4.0	5.8	3.5	4.9	5.2	5.8	0.99	2.4	a	2.5	6.2	2.6	a	3.5	3.9	0.90	0.90
33	6.6	3.4	2.4	2.5	0	2.5	2.5	4.0	2.5	7.0	0	6.1	6.8	4.0	0.99	4.0	3.9	2.3	0.90
34	8.2	0	7.7	5.9	2.3	1.5	11.0	5.8	5.7	7.3	6.8	a	4.7	5.9	5.0	3.4	5.8	0	a
35	4.0	a	4.8	a	a	1.5	5.9	5.0	7.3	5.9	2.5	--	--	--	--	--	--	--	--
36	5.5	3.6	0.94	a	5.4	0	4.0	1.4	7.4	a	1.5	--	--	--	--	--	--	--	--
37	0.99	0	0	a	4.6	6.9	1.4	2.4	3.5	1.5	a	0.99	1.5	2.5	0	0	5.4	3.2	0.90
38	5.1	a	3.4	a	1.4	2.5	1.5	2.5	3.9	12.0	6.5	0.99	0	a	a	a	2.4	2.2	0.90
39	6.7	0	9.7	a	3.6	7.1	6.0	3.4	3.5	4.9	5.9	1.5	a	5.1	3.9	1.5	3.4	6.4	2.3
40	6.9	5.1	7.1	a	0.94	1.4	7.4	a	7.0	10.0	6.9	6.0	10.0	2.6	a	0.99	5.9	7.7	6.0
W-1	1.4	a	1.4	a	4.9	4.7	0.99	0	0	0	3.8	a	1.0	5.7	0	a	a	5.6	2.2
W-2	a	0	a	a	4.7	1.5	12.0	5.2	8.6	1.5	5.8	a	0	0.99	0	a	1.5	2.3	0.90

a. Statistics inadequate. Total count less than background count.

--- No sample received, or sample lost in preparation.

TABLE 4

ACTIVITY OF AIR FILTER SAMPLES

ALPHA ACTIVITY

Day of week	Series 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	μC/cc x 10^{-15}																			
1	---	---	---	0.37	0	7.1	1.6	2.3	4.5	---	6.5	---	2.0	---	0	---	4.9	0.98	0.62	0.70
2	---	---	---	0	0	5.9	5.8	---	7.0	12.0	8.3	---	3.2	0	0	---	---	---	0.25	0
3	---	---	---	0	0	4.3	1.4	6.4	7.4	8.3	7.2	---	1.1	0	---	---	0.34	---	2.0	2.8
4	---	---	---	1.1	1.1	1.5	---	0.33	6.4	9.1	6.3	---	1.8	---	---	7.4	1.5	---	---	---
5	---	---	---	1.3	0.69	0	---	4.8	9.9	4.9	9.1	9.1	1.3	0.29	5.7	0	---	1.0	1.4	---
6	---	---	---	---	0	1.3	6.7	4.2	16.0	---	2.4	6.5	---	0.58	0	---	---	0.64	2.0	0
7	---	---	---	---	0	0	5.8	11.0	---	3.2	---	5.2	0.65	---	0	---	0.38	1.0	1.3	0.29

BETA ACTIVITY

Day of week	Series 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	μC/cc x 10^{-14}																			
1	---	---	---	3.4	5.9	2.1	12.0	9.5	5.0	---	3.2	---	12.0	---	3.5	---	0	2.3	1.7	0.42
2	---	---	---	9.5	10.0	3.1	5.4	---	14.0	5.4	8.6	---	4.3	2.0	3.4	---	---	---	4.5	3.3
3	---	---	---	13.0	10.0	5.4	3.2	6.4	7.3	7.7	6.4	---	2.5	3.0	---	---	1.4	---	1.1	0.68
4	---	---	---	18.0	10.0	3.3	---	2.1	8.6	2.3	9.5	---	5.0	---	---	18.0	0.34	---	---	---
5	---	---	---	19.0	7.7	5.9	---	6.8	11.0	3.3	9.5	7.7	9.5	7.3	0.68	0.91	---	0.50	0.72	---
6	---	---	---	---	5.9	7.3	10.0	14.0	13.0	---	4.1	7.3	---	3.4	0.73	---	---	5.4	0.58	0.81
7	---	---	---	---	1.4	3.6	13.0	15.0	---	0	---	5.4	2.1	---	2.9	---	1.8	2.1	1.3	12.0

--- No sample received, or sample lost in preparation.

TABLE 4 (CONTD)

ACTIVITY OF AIR FILTER SAMPLES

ALPHA ACTIVITY

Day of week	Series																		
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	$\mu C/cc \times 10^{-15}$																		
1	0.39	---	---	---	0	---	---	---	0.44	---	---	---	---	---	---	---	1.6	---	---
2	4.4	0.82	---	---	0.44	---	1.2	0.90	1.6	---	---	---	---	---	---	---	---	4.3	0
3	1.0	5.2	---	---	3.1	---	---	0.16	---	---	---	---	---	---	---	---	---	---	0.048
4	0.40	---	---	---	---	---	---	0	---	---	---	---	0.45	---	---	---	0.22	---	0.98
5	0.40	---	---	---	---	0.30	---	0.34	---	2.0	2.3	---	---	---	---	---	1.8	---	0.48
6	---	---	---	---	---	0.36	---	1.6	2.0	0	1.6	---	0	---	---	0	---	---	1.0
7	---	---	---	1.0	0	---	---	0	---	---	2.6	---	---	---	---	0.58	---	---	0.49

BETA ACTIVITY

Day of week	Series																		
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	$\mu C/cc \times 10^{-14}$																		
1	3.1	---	---	---	0.68	---	---	---	9.0	---	---	---	---	---	---	---	2.2	---	---
2	3.5	1.6	---	---	2.3	---	2.0	3.4	0	---	---	---	---	---	---	---	---	3.6	1.8
3	1.7	9.9	---	---	0.81	---	---	0	---	---	---	---	---	---	---	---	---	---	2.2
4	1.7	---	---	---	---	---	---	1.4	---	---	---	---	1.0	---	---	---	2.6	---	2.5
5	2.1	---	---	---	---	2.0	---	0	---	1.3	1.7	---	---	---	---	---	4.3	---	1.4
6	---	---	---	---	---	1.8	---	0.18	0.63	0.90	0.58	---	0.38	---	---	6.3	---	---	0.76
7	---	---	---	1.7	2.2	---	---	0.72	---	---	1.7	---	---	---	---	4.0	---	---	1.4

--- No sample received, or sample lost in preparation.

TABLE 4 (CONTD)

ACTIVITY OF AIR FILTER SAMPLES

ALPHA ACTIVITY

Day of week	Series 40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
										μC/cc x 10^{-15}									
1	---	0.54	2.0	---	---	2.6	---	2.6	---	1.4	5.0	---	1.0	---	1.0	2.1	1.8	2.8	1.4
2	---	0	---	---	---	0	---	0.15	---	---	3.1	---	1.5	1.8	3.0	1.3	2.6	0.5	1.3
3	---	0.98	---	---	---	2.2	0	1.1	---	---	9.8	---	---	---	2.8	3.3	1.8	2.6	0.8
4	---	0.0090	---	---	---	0	0.69	---	---	---	---	---	1.0	0.55	---	2.9	2.0	0.9	---
5	---	1.8	---	---	1.4	2.6	---	1.6	---	0.0090	---	---	4.7	0.52	---	3.8	1.5	0.9	0.3
6	---	0.90	---	---	0	---	---	---	---	---	---	---	1.5	1.1	1.7	4.7	2.6	---	---
7	2.0	0.29	---	---	---	---	0.66	---	---	---	---	---	5.0	---	---	---	2.7	1.0	0.8

BETA ACTIVITY

Day of week	Series 40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
										μC/cc x 10^{-14}									
1	---	0.63	2.8	---	---	2.7	---	7.6	---	6.3	28.0	---	28.0	---	15.0	6.3	11.0	7.6	0.4
2	---	5.0	---	---	---	0.81	---	7.2	---	---	3.1	---	13.0	8.1	3.8	2.5	13.0	14.0	2.5
3	---	4.1	---	---	---	7.2	6.3	8.1	---	---	3.0	---	---	---	39.0	9.0	5.4	20.0	14.0
4	---	1.6	---	---	---	3.6	4.1	---	---	---	---	---	3.0	3.8	---	15.0	9.9	5.0	---
5	---	4.4	---	---	4.2	3.7	---	8.1	---	3.9	---	---	4.5	1.7	---	34.0	14.0	1.0	2.9
6	---	3.9	---	---	2.6	---	---	---	---	---	---	---	7.2	2.2	7.2	21.0	30.0	---	---
7	4.5	2.5	---	---	---	---	4.3	---	---	---	---	---	5.0	---	---	---	12.0	0.6	2.3

--- No sample received, or sample lost in preparation.

TABLE 5

MAXIMUM GAMMA SURVEY READING OBSERVED AT ONE METER ABOVE SURFACE

Station no.*	Series																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
									mr/hr											
1	.04	.03	.03	.02	.02	.03	.02	.03	.03	.02	.03	.03	.03	.03	.02	.03	.02	.03	.02	.03
2	.04	.03	.03	.03	.03	.02	.03	.03	.03	.02	.03	.03	.03	.03	.03	.03	.03	.03	.03	.02
3	.04	.04	.02	.02	.03	.03	.03	.02	.03	.03	.02	.03	.03	.02	.02	.03	.03	.03	.02	.02
4	.03	.03	.02	.02	.02	.03	.03	.03	.02	.03	.03	.03	.02	.02	.03	.02	.02	.02	.02	.02
5	.03	.03	.03	.03	.03	.03	.02	.02	.03	.03	.03	.02	.03	.03	.03	.02	.02	.02	.03	.02
6	.03	.03	.03	.03	.03	.03	.02	.03	.04	.03	.03	.02	.02	.02	.03	.02	.02	.03	.03	.02
7	.03	.02	.03	.02	.02	.03	.03	.03	.03	.03	.03	.03	.03	.02	.02	.03	.03	.03	.02	.02
8	.03	.02	.02	.02	.03	.02	.02	.02	.03	.04	.02	.04	.02	.02	.02	.03	.02	.02	.02	.03
9	.03	.02	.03	.03	.02	.03	.03	.03	.03	.03	.03	.02	.03	.02	.02	.02	.03	.03	.02	.02
10	.04	.02	.02	.02	.02	.03	.02	.03	.02	.03	.03	.03	.03	.03	.03	.03	.02	.02	.03	.03
11	.04	.02	.03	.02	.03	.02	.04	.04	.04	.03	.02	.03	.02	.02	.02	.02	.02	.03	.02	.03
12	.04	.02	.02	.02	.03	.03	.03	.02	.03	.02	.04	.02	.02	.02	.02	.02	.02	.03	.03	.02
13	.03	.02	.02	.02	.02	.03	.02	.03	.02	.03	.03	.03	.02	.02	.03	.02	.02	.02	.02	.03
14	.03	.02	.02	.03	.03	.03	.02	.03	.03	.03	.03	.03	.03	.02	.02	.02	.02	.02	.03	.02
15	.04	.02	.02	.03	.02	.02	.03	.03	.03	.03	.03	.03	.02	.03	.02	.02	.03	.03	.02	.03
16	.03	.02	.02	.03	.03	.03	.03	.02	.04	.03	.02	.02	.03	.02	.02	.02	.02	.02	.02	.02
17	.03	.03	.02	.03	.03	.02	.03	.03	.03	.04	.03	.03	.03	.02	.03	.02	.03	.02	.03	.02
18	.03	.02	.02	.03	.03	.03	.02	.02	.03	.03	.03	.03	.03	.03	.02	.03	.02	.02	.02	.03
19	.03	.02	.02	.02	.02	.03	.02	.03	.03	.03	.03	.04	.02	.02	.02	.03	.02	.03	.03	.02
20	.03	.03	.02	.02	.03	.03	.03	.03	.02	.03	.04	.03	.03	.03	.02	.02	.02	.03	.03	.02
21	.04	.02	.02	.03	.02	.03	.02	.04	.03	.03	.03	.03	.02	.02	.03	.02	.02	.03	.03	.02
22	.04	.02	.03	.03	.02	.02	.03	.03	.02	.02	.02	.02	.02	.02	.02	.02	.03	.02	.02	.03
23	.02	.02	.02	.03	.02	.02	.02	.03	.03	.03	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
24	.02	.01	.02	.02	.03	.03	.03	.03	.02	.03	.03	.02	.03	.03	.02	.02	.03	.02	.03	.02
25	.04	.02	.03	.02	.02	.03	.02	.03	.03	.02	.03	.03	.03	.02	.03	.02	.03	.03	.02	.03
26	.04	.02	.02	.02	.03	.02	.03	.03	.04	.03	.03	.02	.03	.03	.02	.02	.02	.03	.03	.02
27	.04	.02	.03	.03	.03	.03	.02	.04	.03	.03	.03	.03	.02	.03	.02	.03	.03	.02	.03	.03
28	.03	.02	.02	.03	.03	.02	.03	.02	.03	.03	.03	.02	.02	.02	.03	.02	.03	.02	.03	.02
29	.04	.02	.02	.02	.03	.03	.03	.03	.02	.02	.02	.03	.03	.02	.02	.02	.02	.02	.02	.02
30	.03	.02	.03	.03	.03	.03	.02	.02	.03	.03	.03	.02	.04	.02	.02	.02	.02	.02	.03	.03
31	.03	.02	.02	.02	.02	.02	.03	.02	.03	.03	.03	.03	.02	.03	.02	.03	.03	.03	.03	.02
32	.03	.02	.02	.02	.03	.03	.03	.03	.03	.03	.02	.02	.03	.03	.03	.02	.03	.02	.03	.03
33	.04	.02	.02	.03	.03	.03	.03	.03	.03	.04	.02	.03	.02	.02	.00	.02	.02	.03	.03	.02
34	.03	.02	.03	.03	.02	.02	.03	.02	.03	.03	.03	.03	.03	.02	.02	.02	.03	.02	.02	.02
35	.03	.02	.03	.02	.02	.03	.03	.03	.02	.03	.03	.03	.02	.02	.02	.02	.03	.02	.03	.03
36	.02	.02	.02	.03	.03	.02	.03	.03	.03	.03	.03	.02	.03	.03	.02	.02	.02	.03	.02	.02
37	.03	.02	.03	.03	.03	.03	.03	.03	.03	.02	.03	.03	.02	.02	.02	.03	.02	.02	.03	.02
38	.04	.03	.03	.03	.03	.02	.02	.03	.02	.03	.03	.02	.03	.04	.03	.02	.03	.04	.03	.02
39	.03	.02	.03	.03	.03	.03	.03	.02	.02	.02	.04	.03	.03	.02	.02	.02	.03	.03	.03	.03
40	.03	.02	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	.02	.03	.02	.02	.02	.03	.03	.03
A**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
B**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.01	.02
C**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
D**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
E**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.01	.02	.02	.02	.02
F**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
G**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.03	.02	.02	.02	.02	.02
H**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
I**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
J**	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02

* See figure 1 for location of stations
** See figure II for location of stations

TABLE 5 (CONTD)

MAXIMUM GAMMA SURVEY READING OBSERVED AT ONE METER ABOVE SURFACE

Station no.*	Series																		
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	mr/hr																		
1	.02	.02	.03	.02	.01	.02	.02	.02	---	.02	.02	---	.02	.02	---	.01	.02	.02	.01
2	.01	.02	.02	.03	.02	.01	.01	.02	---	.02	.02	---	.02	.02	---	.02	.02	.02	.01
3	.02	.02	.02	.02	.02	.02	.01	.01	---	.01	.01	---	.02	.01	---	.01	.01	.01	.01
4	.02	.02	.02	.03	.02	.02	---	.02	---	---	.02	---	---	---	---	.02	.01	.01	.01
5	.02	.01	.01	.02	.02	.02	---	.02	---	---	.02	---	---	---	---	.02	.01	.01	.01
6	.02	.02	.02	.02	.01	.02	---	.01	---	---	.02	---	---	---	---	.02	.01	.01	.01
7	.02	.02	.02	.02	.02	.02	---	.01	---	---	.02	---	---	---	---	.01	.01	.01	.01
8	.02	.02	.02	.03	.02	.01	.02	.01	---	.01	.02	---	.02	.02	---	.02	.01	.02	.02
9	.01	.02	.03	.03	.02	.02	.02	.02	---	.02	.01	---	.02	.01	---	.02	.01	.01	.02
10	.01	.02	.02	.04	.02	.02	.02	.02	---	.01	.01	---	.02	.01	---	.02	.02	.02	.02
11	.02	.02	.02	.04	.02	.02	.01	.02	---	.01	.02	---	.02	.02	---	.02	.02	.02	.02
12	.01	.01	.01	.03	.02	.01	.05	.01	---	.02	.01	---	.01	.01	---	.01	.02	.01	.01
13	.02	.02	.02	.02	.02	.01	.01	.02	---	.02	.02	---	.01	.01	---	.01	.01	.02	.02
14	.01	.01	.02	.03	.02	.01	---	.01	---	---	.01	---	---	---	---	.02	.01	.01	.01
15	.02	.02	.02	.04	.02	.02	---	.01	---	---	.01	---	---	---	---	.01	.01	.01	.02
16	.02	.02	.02	.02	.02	.02	---	.02	---	---	.01	---	---	---	---	.01	.01	.01	.01
17	.02	.02	.02	.02	.01	.02	---	.02	---	---	.01	---	---	---	---	.01	.02	.02	.01
18	.01	.02	.03	.02	.02	.01	.01	.01	---	.02	.01	---	.01	.02	---	.02	.01	.02	.02
19	.02	.02	.02	.02	.02	.02	.02	.02	---	.01	.02	---	.02	.01	---	.01	.02	.02	.02
20	.02	.02	.02	.03	.02	.01	.01	.02	---	.01	.01	---	.02	.02	---	.02	.02	.01	.01
21	.01	.02	.02	.03	.02	.01	.02	.02	---	.02	.02	---	.02	.01	---	.02	.02	.02	.02
22	.01	.02	.02	.03	.02	.01	.01	.01	---	.02	.01	---	.01	.01	---	.02	.01	.02	.01
23	.02	.02	.02	.02	.02	.02	.01	.01	---	.01	.01	---	.02	.01	---	.01	.02	.01	.02
24	.01	.02	.02	.03	.02	.02	---	.01	---	---	.01	---	---	---	---	.01	.01	.01	.01
25	.02	.03	.02	.02	.03	.01	---	.01	---	---	.01	---	---	---	---	.01	.01	.01	.01
26	.02	.02	.02	.02	.02	.02	---	.02	---	---	.01	---	---	---	---	.02	.02	.01	.02
27	.02	.02	.02	.03	.02	.01	---	.01	---	---	.02	---	---	---	---	.01	.01	.01	.01
28	.02	.02	.01	.02	.02	.02	.01	.02	---	.01	.02	---	.01	.01	---	.02	.01	.02	.01
29	.02	.02	.03	.02	.02	.02	.02	.02	---	.01	.01	---	.02	.01	---	.01	.02	.01	.02
30	.02	.02	.02	.02	.02	.02	.02	.01	---	.02	.02	---	.01	.01	---	.02	.01	.02	.02
31	.02	.02	.02	.02	.02	.02	.02	.02	---	.02	.01	---	.02	.01	---	.01	.02	.02	.01
32	.01	.02	.02	.02	.02	.02	.01	.01	---	.02	.01	---	.01	.01	---	.01	.02	.02	.01
33	.02	.02	.02	.03	.02	.02	.02	.01	---	.02	.01	---	.01	.01	---	.01	.02	.01	.02
34	.01	.02	.02	.03	.02	.01	---	.02	---	.01	.01	---	---	---	---	.01	.01	.02	.01
35	.02	.00	.02	.03	.02	.02	---	.01	---	.02	.01	---	---	---	---	.01	.01	.01	.01
36	.03	.02	.02	.02	.02	.02	---	.01	---	.01	.01	---	---	---	---	.01	.01	.01	.01
37	.02	.02	.02	.02	.02	.02	---	.01	---	.02	.02	---	---	---	---	.01	.01	.01	.01
38	.02	.02	.02	.02	.02	.02	.01	.02	---	.02	.01	---	.02	.01	---	.01	.01	.01	.02
39	.02	.02	.03	.02	.01	.03	.02	.01	---	.01	.02	---	.01	.01	---	.01	.02	.02	.01
40	.02	.02	.02	.02	.01	.02	.01	.01	---	.02	.01	---	.02	.02	---	.01	.02	.01	.02
A**	.01	.02	.02	.01	.00	.02	.01	.01	.02	.01	.01	.01	.02	.02	.02	.01	.01	.02	.01
B**	.02	.02	.01	.02	.00	.01	.02	.00	.01	.02	.01	.02	.01	.01	.01	.02	.01	.01	.01
C**	.02	.02	.02	.02	.01	.02	.01	.01	.01	.01	.02	.01	.01	.01	.01	.01	.02	.01	.02
D**	.01	.01	.01	.02	.00	.00	.02	.01	.02	.01	.02	.02	.02	.02	.02	.02	.01	.02	.01
E**	.02	.02	.01	.02	.01	.01	.02	.02	.01	.01	.01	.01	.02	.01	.01	.02	.01	.02	.02
F**	.01	.01	.01	.02	.00	.00	.01	.01	.01	.01	.01	.01	.01	.00	.01	.01	.01	.01	.01
G**	.01	.02	.02	.01	.01	.00	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
H**	.02	.02	.01	.03	.01	.01	.02	.01	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01
I**	.02	.02	.02	.03	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01	.01	.01	.01
J**	.02	.02	.01	.02	.00	.00	.02	.01	.00	.02	.00	.02	.01	.01	.01	.01	.01	.02	.02

* See figure 1 for location of stations

** See figure II for location of stations

--- No reading taken

TABLE 5 (CONTD)

MAXIMUM GAMMA SURVEY READING OBSERVED AT ONE METER ABOVE SURFACE

Station no.*	Series																		
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
	mr/hr																		
1	.02	.02	.02	.02	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.04	.01	.01
2	.02	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01	.01
3	.02	.01	.03	.03	.02	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
4	.01	.02	.02	.01	.02	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
5	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
6	.02	.01	.03	.01	.02	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
7	.01	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
8	.02	.01	.02	.02	.01	.01	.01	.02	.02	.01	.01	---	---	---	---	---	---	---	---
9	.02	.01	.02	.02	.01	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
10	.02	.02	.02	.02	.02	.02	.04	.02	.02	.03	.01	.01	.01	.03	.03	.04	.06	.01	.01
11	.02	.01	.02	.01	.02	.02	.02	.02	.01	.02	.01	.01	.01	.02	.02	.02	.03	.02	.02
12	.01	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
13	.02	.01	.01	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.05	.02	.01
14	.02	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
15	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
16	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
17	.01	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.03	.02
18	.02	.01	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.03	.02
19	.01	.02	.02	.02	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
20	.02	.02	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
21	.01	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
22	.02	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
23	.02	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01
24	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01
25	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
26	.01	.01	.01	.02	.02	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
27	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
28	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
29	.02	.01	.02	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
30	.02	.02	.01	.02	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
31	.02	.01	.02	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02
32	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
33	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.03	.02
34	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
35	.01	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
36	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	---	---	---	---	---	---	---	---
37	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
38	.01	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02
39	.02	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
40	.02	.01	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01	.02	.02	.02
A**	.01	.01	.01	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01
B**	.02	.01	.02	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
C**	.01	.02	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
D**	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02
E**	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02
F**	.01	.01	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
G**	.01	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02
H**	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.01
I**	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02
J**	.01	.01	.02	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02

* See figure 1 for location of stations

** See figure II for location of stations

--- No reading taken

IV. SUMMARY.

The compilation includes the results of the environmental monitoring program at Camp Century, Greenland for the first 58 weeks. Snow and water samples were gathered weekly. Air samples were taken daily. Absolute gross alpha and beta activity determinations were made on each sample and activities reported in microcuries per milliliter for snow and water samples and microcuries per cubic centimeter for air samples.

All the observed sample activities were well below the maximum permissible concentrations recommended by the AEC, which are 10^{-7} μC/ml of alpha or beta emitters in water and 5×10^{-12} μC/cc of an alpha emitter or 10^{-9} μC/cc of a beta emitter in air.

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A COMPILATION OF CAMP CENTURY ENVIRONMENTAL MONITORING DATA FROM 20 MAY 1960 TO 30 JUNE 1961 -
Robert J. Nicoll, John W. Kinch, John H. McNeilly, and David T. Kilminster

NDL-TR-28, March 1961
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